CLAIMS:

1. A method of protecting intrinsically safe circuits in which a voltage is supplied via a supply circuit to a load, which comprises sensing the voltage at the load and, in the event that a decrease in the said voltage is detected, disconnecting the load in such manner as to prevent any series break in the supply circuit from becoming incendive.

2. A method according to claim 1, in which a plurality of loads are fed from one or more power supplies via a common power bus.

3. A method according to claim 1, which comprises incorporating means to sense the voltage and means to disconnect the load into a module which includes the load.

4. A method according to claim 3, which comprises protecting the means to disconnect the load from over-current.

5. A method according to claim 3, which comprises protecting the means to disconnect the load from over-dissipation.

6. Apparatus for protecting an intrinsically safe circuit which includes a load and which is arranged to be supplied via a supply circuit with a voltage from power supply means, the apparatus comprising sensing means arranged to detect the said voltage, and switch means arranged, in response to the detection by the sensing means of a decrease in the said voltage, to disconnect the load in such manner as to prevent any series break upstream from the switch means from becoming incendive.

7. Apparatus according to claim 6, in which the sensing means and the switch means are incorporated into a module which includes the load, with the sensing means and the switch means being on the supply side of the load.

8. Apparatus according to claim 6, in which the sensing means comprises a Zener diode.

9. Apparatus according to claim 6, in which the switch means comprises a transistor switch.

10. Apparatus according to claim 6, which comprises means to protect the switch means from over-current.

11. Apparatus according to claim 6, which comprises means to protect the switch means from over-dissipation.

12. A power system for an intrinsically safe circuit, comprising power supply means, power distribution means connected to the power supply means, and at least one module connected to the power distribution means, the or each module comprising an intrinsically safe circuit including a load, sensing means to detect the voltage suppled to the load, and switch means arranged, in response to the detection by the sensing means of a decrease in the supplied voltage, to disconnect the load in such manner as to prevent any series break upstream from the switch means from becoming incendive.

13. A power system according to claim 12, in which the power supply means comprises one or more power supplies, and the power distribution means comprises a power bus connected to a plurality of modules.